Agenda Date: 4/14/04
Agenda Item: 2A

STATE OF NEW JERSEY

Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
www.bpu.state.nj.us

ENERGY

IN THE MATTER OF THE AMENDED PETITION OF ATLANTIC CITY ELECTRIC COMPANY FOR A DETERMINATION PURSUANT TO THE PROVISIONS OF N.J.S.A. 40:55D-19 THAT THE USE OF CERTAIN LANDS WITHIN THE TOWNSHIP OF EGG HARBOR, TOWNSHIP OF GALLOWAY, AND THE CITY OF PORT REPUBLIC WITHIN THE COUNTY OF ATLANTIC; AND WITHIN THE TOWNSHIP OF BASS RIVER WITHIN THE COUNTY OF BURLINGTON; AND WITHIN THE TOWNSHIP OF LITTLE EGG HARBOR, TOWNSHIP OF EAGLESWOOD, TOWNSHIP OF STAFFORD, TOWNSHIP OF BARNEGAT, TOWNSHIP OF OCEAN, TOWNSHIP OF LACEY WITHIN THE COUNTY OF OCEAN, ALL IN THE STATE OF NEW JERSEY, ARE REASONABLY NECESSARY FOR THE SERVICE, CONVENIENCE OR WELFARE OF THE PUBLIC; AND THAT THE ZONING AND LAND USE ORDINANCES OF THOSE MUNICIPALITIES AND COUNTIES SHALL HAVE NO APPLICATION THERETO	DECISION AND ORDER AS TO THE "NORTHERN" ROUTE DOCKET NO. EE02080521

(SERVICE LIST ATTACHED)

BY THE BOARD:[1]

I. PROCEDURAL HISTORY

A. The Petition

Atlantic City Electric Company ("Atlantic Electric", "Company" or "Petitioner") is a corporation of the State of New Jersey, and an electric utility as defined within Title 48 of the New Jersey Statutes and, as such, is subject to the jurisdiction of the New Jersey Board of Public Utilities ("Board"). On August 9, 2002, Atlantic Electric filed a Petition pursuant to N.J.S.A. 40:55D-19 requesting an order that the Zoning, Site Plan Review and all other Municipal Land Use Ordinances or Regulations promulgated under the auspices of Title 40 of the New Jersey

[1] Commissioner Jack Alter did not participate in the deliberation or the vote on this matter.

Statutes and the Land Use Act of the State of New Jersey, as adopted by the Township of Egg Harbor, the Township of Galloway, the City of Port Republic within the County of Atlantic, and the Township of Bass River within the County of Burlington, and the Township of Little Egg Harbor, the Township of Eagleswood, the Township of Stafford, the Township of Barnegat, the Township of Ocean, and the Township of Lacey within the County of Ocean or by any of them, or of the respective counties, all in the State of New Jersey, shall not apply to either the siting of certain transmission line corridors or the construction and operation of a 230,000 volt ("230kV") transmission line all as more specifically described therein and as proposed to be constructed within and through a portion of said municipalities and counties; nor shall such Statute, Ordinances, Rules or Regulations promulgated thereunder be applied to the facilities and structures associated with and appurtenant to said transmission line. A copy of said Petition was duly served upon each of the affected municipalities and counties as required by law. The Township of Galloway was the only respondent to file an Answer to the original Petition. On January 21, 2004, Atlantic Electric filed a petition amending the original Petition that had been filed on August 9, 2002. This Amended Petition was also filed pursuant to N.J.S.A. 40:55D-19 and requested an order that the Zoning, Site Plan Review and all other Municipal Land Use Ordinances or Regulations promulgated under the auspices of Title 40 of the New Jersey Statutes and the Land Use Act of the State of New Jersey, as adopted by the Township of Egg Harbor, the Township of Galloway, the City of Port Republic within the County of Atlantic, and the Township of Bass River within the County of Burlington, and the Township of Little Egg Harbor, the Township of Eagleswood, the Township of Stafford, the Township of Barnegat, the Township of Ocean, and the Township of Lacey within the County of Ocean or by any of them, or of the respective counties, all in the State of New Jersey, shall not apply to either the siting of certain transmission line corridors or the construction and operation of a certain 230kV transmission line all as more specifically described therein and as proposed to be constructed within and through a portion of said municipalities and counties; nor shall such Statute, Ordinances, Rules or Regulations promulgated thereunder be applied to the facilities and structures associated with and appurtenant to said transmission lines. A copy of said Amended Petition was duly served upon each of the affected municipalities and counties as required by law. Timely answers to the Amended Petition were filed by the Townships of Galloway, Barnegat and Bass River, and the County of Ocean.

On February 5, 2004, a prehearing conference was held via telephone in this matter. During the conference, Respondents Ocean County, Barnegat Township and Bass River Township raised objections to the hearing dates, location and venue for the evidentiary hearings. At the time the hearing dates had been set for February 27 and March 1, 2004, in the Board Offices in Newark, New Jersey. On February 18, 2004, the Board entered a Prehearing Order that set forth filing dates for pre-hearing motions, pre-filed testimony and rebuttal testimony, with February 11, 2004 as the deadline for filing motions on the issues of hearing dates, location and venue, with reply briefs to be filed by February 17, 2004. On February 10, 2004, the Company filed a motion to confirm the evidentiary hearing dates of February 27 and March 1, 2004. On February 11, 2004, Ocean County, Bass River Township and Barnegat Township filed motions requesting adjournments of ninety (90) to one hundred and twenty (120) days and requested oral argument on these motions. During the pendency of these motions, Commissioner Frederick F. Butler, *sua sponte,* adjourned the hearing dates to the week of March 15, 2004, and changed the location of the hearings to the Board's office in Trenton, New Jersey. In an undated Order, provided to all parties on February 27, 2004, Commissioner Butler denied the motions for adjournment and granted, as modified, the motion of the Petitioner confirming the hearing dates for the week of March 15, 2004; denied the Respondents' motions to change the location of the hearings; and denied the Respondents' motion to transfer the matter to the Office of Administrative Law. On February 18, 2004, a motion was filed with the Board by counsel for

Commonwealth Shore Power, LLC ("Commonwealth") seeking participation status in this matter. On March 9, 2004, Petitioner filed papers in opposition to Commonwealth's motion for participation. On February 20, 2004, the Township of Stafford filed a motion with the Board to file an answer out of time and on February 23, 2004, a similar motion was filed on behalf of the Township of Eagleswood. On March 1, 2004, the Board served a *Subpoena Ad Testificandum* upon William H. Whitehead of the PJM Interconnection, LLC ("PJM") to present testimony on March 15, 2004, before Commissioner Butler, the presiding officer, during the hearings on this matter. On March 3, 2004, Mr. Whitehead issued prefiled testimony in response to the Subpoena. In response to Mr. Whitehead's prefiled testimony, Commissioner Butler issued an Amended Prehearing Order on March 3, 2004, allowing any party to provide prefiled rebuttal testimony to the PJM testimony no later than March 10, 2004. On March 11, 2004, Commissioner Butler granted the motions of the Township of Eagleswood and the Township of Stafford to file answers out of time and also granted the motion of Commonwealth Power LLC for leave to participate in the proceeding providing that Commonwealth would be permitted to file initial and post hearing reply briefs, but could not seek discovery or engage in direct or cross examination. No other answers or pleadings were filed in response to the Petition or the Amended Petition. On March 15, 2004, Commissioner Butler granted the motion of the Township of Eagleswood and the Township of Little Egg Harbor to present testimony at the hearing.

B. <u>The Data Requests</u>

After service of a series of detailed data requests propounded by Board Staff, Petitioner filed with the Board written responses to the data requests under cover of letter dated November 15, 2002. Petitioner filed its initial prefiled testimony and supplemental prefiled testimony in response to NJBPU ENR-27 on November 21, 2002, and February 5, 2004, respectively. Copies of all responses as well as prefiled testimony and supplemental prefiled testimony were sent to all Respondents under cover of letters dated November 21, 2002, and February 5, 2004; and to the Attorney for Eagleswood Township and Stafford Township on March 10, 2004.

The Division of the Ratepayer Advocate ("Ratepayer Advocate") also served a series of data requests upon the Petitioner. The Petitioner filed written responses to Data Requests RAR-AP1 through RAR-AP19 on February 25, 2004. On February 10, 2004, Petitioner filed an Appraisal Report prepared by David M. Neyers of Appraisal Services, Inc. as an amendment to NJBPU ENR-32, which was filed on November 15, 2003, and on March 9, 2004, Petitioner filed an Addendum to Planning Analysis Report dated February 2004, as an amendment to NJBPU ENR-13, filed on November 15, 2002. Following the execution of a Confidentiality Agreement between the Ratepayer Advocate and Petitioner, which is dated March 10, 2004, Petitioner filed written responses to Data Requests RAR-AP4 and RAR-AP7. On March 2, 2004, Respondent, Bass River Township, filed the prefiled testimony of T. Richard Bethea, Mayor of Bass River Township, and on March 9, 2004, Petitioner filed the Rebuttal Testimony of Frank Sobonya to the prefiled testimony of Mayor Bethea. On March 2, 2004, Respondent, Barnegat Township, filed an expert report prepared by Michael D. Vena, P.E.

Petitioner's responses to the data requests of the Board Staff and the Ratepayer Advocate, which included an extensive series of pertinent exhibits, as supplemented and amended, have been made a part of the record in this proceeding. Petitioner's prefiled testimony, supplemental prefiled testimony and rebuttal testimony have also been made a part of the record. Respondent, Bass River Township's prefiled testimony, Respondent, Barnegat Township's

Engineer's report, and Respondent, Eagleswood Township's Engineer's report have also been made part of the record.

C. The Public Hearing

Jurisdiction in this matter was reserved by the Board pursuant to N.J.S.A. 52:14F-8(b). A public hearing was scheduled to commence on February 10, 2004, at 5:00 p.m. in the Performing Art Center at Richard Stockton State College in Pomona, Galloway Township, New Jersey. Written notice of the date, place and time of hearing was duly served upon the clerks of the Township of Egg Harbor, the Township of Galloway, the City of Port Republic, the Township of Bass River, the Township of Little Egg Harbor, the Township of Eagleswood, the Township of Stafford, the Township of Barnegat, the Township of Ocean, and the Township of Lacey. Service was also effected upon the clerks of each of the Boards of Chosen Freeholders. Written notice of the date, time and place of the hearing was made pursuant to N.J.S.A., 48:2-32.2(c) and N.J.S.A. 40:55D-19. Copies of the Affidavits and Proofs of Service have been filed with the Board and are a part of the record in this proceeding. A Notice was also published In the Atlantic City Press and the Asbury Park Press on Sunday, January 25, 2004.

The public hearing was held, as scheduled, commencing at 5:00 p.m. on February 10, 2004, before Commissioner Butler. Copies of the list of Atlantic City Electric Company and Board Staff attendees and a copy of the form of "sign-in" sheet that had been available for use by the public attendees have all been filed, and are included as part of the record of this proceeding. In addition, the record was kept open until February 24, 2004, in order to accept written comments from any member of the public who was unable to attend the public hearing or who preferred to submit comments in a written format.

D. The Evidentiary Hearing

A formal hearing was scheduled to commence on March 15, 2004, at 10:00 A.M. in the offices of the Board in Trenton, New Jersey. Written notice of the date, place and time of hearing was duly served upon the clerks of the Township of Egg Harbor, the Township of Little Egg Harbor, the Township of Eagleswood, the Township of Stafford, the Township of Ocean and the Township of Lacey. Written notices of the date, place and time of hearing were also duly served upon the solicitors for the Township of Galloway, City of Port Republic, the Township of Bass River, the Township of Barnegat and the County of Ocean.

Written notice of the date, time and place of the hearing was made pursuant to N.J.S.A. 48:2-32.2(c) and N.J.S.A. 40:55D-19. Copies of the Affidavits and Proofs of Service have been filed with the Board and are part of the record in this proceeding. The Townships of Galloway, Barnegat, Bass River, Eagleswood and Stafford have filed responses to the Petition, as has the County of Ocean. Respondent Ocean Township filed an appearance on March 16, 2004.

The hearing was held, as scheduled, commencing at 10:00 A.M. on March 15, 2004. The hearing could not be completed in one day and was, therefore, adjourned, with the hearings continuing on March 16, 2004, on which date the hearings were concluded.

The hearings were held before Commissioner Butler and were attended by representatives of the Petitioner and by members of the Staff of the Board's Division of Energy duly assigned to the proceeding. Also participating in the proceeding were the Ratepayer Advocate, the

Township of Bass River, the Township of Eagleswood, the Township of Little Egg Harbor, the Township of Stafford, the Township of Barnegat and the County of Ocean. Also present at the hearing were representatives from Commonwealth Power, LLC. William H. Whitehead, General Manager of Transmission and Interconnection Planning in the System Planning Division of the PJM Interconnection, LLC participated in the hearing in response to the *Subpoena Ad Testificandum* that had been issued by Commissioner Butler and served upon Mr. Whitehead on March 1, 2004. During the course of the hearing, PJM produced one witness and Petitioner produced five witnesses. Furthermore, a series of sixty-three individual exhibits were introduced by Petitioner and were admitted into evidence. Each of the witnesses presented was subjected to cross-examination by Staff, the Ratepayer Advocate and counsel for the respective Respondents.

The following witness was produced and testified in response to a *Subpoena Ad Testificandum* on behalf of Board Staff:

William H. Whitehead, General Manager of Transmission and Interconnection Planning in the System Planning Division of the PJM Interconnection, LLC

The following witnesses were produced and testified on behalf of Petitioner:

Frank Caroselli, Senior Project Engineer, Transmission Planning Department;

Frank Sobonya, Team Lead Engineer, Transmission and Civil Engineering Department;

Robert Jubic, Manager of Environmental Services;

William Pyle, Supervisor of Right-of-Way Transmission and Distribution Engineering Department; and

William H. Bailey, Ph.D., Principal Scientist and Director of Exponent, Inc. a Research and Consulting Firm engaged by Petitioner

On March 16, 2004, Respondent, Barnegat Township, on behalf of Barnegat Township and Respondent, Ocean Township, and Respondent, Ocean County, represented to Commissioner Butler that a settlement had been reached with the Petitioner that revised the route through those three geographic areas. A Stipulation of Partial Settlement, which memorialized the agreement, was marked and moved into evidence as Exhibit J-1. Also marked and moved into evidence was Exhibit J-2 Map Showing the Revised Route and Exhibit J-3 Further Clarification Map of the Stipulation. The Stipulation of Partial Settlement as to Ocean County was only as to the route through Barnegat and Ocean Townships in Ocean County. Respondent, Ocean County, remained a party to the action as to those Respondents in Ocean County that were not parties to the Stipulation.

Respondent Eagleswood Township, produced the following witness who testified on behalf of the Township of Eagleswood:

John J. Mallon, P.E., Ernst, Ernst and Lissenden, Consulting Engineers, Planner & Surveyors, Borough Engineer for Eagleswood Township

Respondent Bass River Township, produced the following witness who testified on behalf of the Township of Bass River:

The Honorable T. Richard Bethea, Mayor Bass River Township

E. Post Hearing Briefs and Issues

At the conclusion of the evidentiary hearings on March 16, 2004, Commissioner Butler announced that post-hearing briefs would be due on March 23, 2004, with reply post-hearing briefs due on March 29, 2004. All briefs were to be served simultaneously upon all parties. Post-hearing briefs were provided by the Ratepayer Advocate, the Company, the Township of Eagleswood, Bass River Township, PJM and the participant, Commonwealth Shore Power, LLC.

Atlantic Electric submitted its post-hearing brief on March 22, 2004, noting its belief that the Company had satisfied the statutory burden necessary in order for the Board to issue an Order directing the non-application of the individual municipal zoning requirements as provided under N.J.S.A. 40:55D-19. Drawing from the New Jersey Supreme Court's decision in In re Public Service Electric & Gas Co., 35 N.J. 358 (1961), the Company notes that five factors were of primary importance in the application of the statute: 1) the phrase "for the service, convenience and welfare of the public" refers to the public as a whole and not to the limited group impacted by the local zoning ordinance; 2) the proposed use must be reasonably, not absolutely, necessary; 3) the particular site or location must be found "reasonably necessary" and thus the Board must consider the local zoning plan or ordinance as well as the characteristics of both the land used and the surrounding neighborhood; 4) alternative sites or methods, with the associated benefits and liabilities, including cost, must be considered; and 5) the Board must weigh all the interests and factors in light of the full nature of the proposal to determine the necessity of the use. Likewise, Atlantic Electric notes that, under the language first set forth by the Appellate Division in Application of Hackensack Water Co., 41 N.J. Super. 408, 426-27 (App. Div. 1956), "the burden of demonstrating a feasible alternative method ought to devolve on the objectors, as should a showing of alternative sites beyond those brought forward by the applicant."

The Petitioner discusses the evidentiary basis supporting the need for the line, and cites the testimony of both the Company's Senior Project Manager, Frank Caroselli and the General Manager of Transmission and Interconnection Planning in the System Design Division of the PJM, William H. Whitehead. In both cases, notes Atlantic Electric, the testimony supports both the need for the line and the investigation and dismissal of other options. Additionally, the Company discusses the failure, it is claimed, of the testimony presented by Eagleswood Township and Bass River Township to support any of the proposed "alternate" routes, and that under the decision in Application of Hackensack Water Co., this burden rests upon the Townships. Instead, notes Atlantic Electric, the proposed route has been well developed and discussed through the pre-filed testimony and is supported as being necessary and practical under the present factual circumstances. Also, the Petitioner notes that it provided significant evidence on the issue of electromagnetic field emissions and the lack of definitive proof as to any detrimental health impact associated with field strength levels expected with the current project. Finally, the Company notes that the issues of zoning conformity and the determination that the proposed route minimizes the impact upon land use ordinances, the environment and upon individuals, as well as the determination that the proposed route is an appropriate and practical one has been well supported and not contradicted.

The Division of the Ratepayer Advocate, on March 22, 2004, filed a post-hearing brief essentially indicating that, while it does not dispute the need for the transmission line, it reserves its right to examine the cost recovery mechanism that Atlantic Electric may propose in any future proceedings before the Board wherein rate recovery may be sought. The Ratepayer Advocate further notes that while it is satisfied that the line is suitable, it would like to emphasize that the Board should consider the environmental and safety issues raised by the parties in this matter.

Also on March 22, 2004, the County of Ocean submitted a post-hearing brief. The County of Ocean, while not taking exception to the need for the increased transmission capacity, raises concerns with the possible health impact of electromagnetic field emissions and possible remedial actions. The County of Ocean requests that the Board require Atlantic Electric to use "reverse phasing" of the transmission lines wherever possible and for the Board to, to the extent possible, relocate the lines away from people on the western side of the Garden State Parkway. Both actions are predicated, claims the County, upon the possible health impact of electromagnetic field emissions and are in keeping with the spirit of proposed New Jersey Department of Environmental Protection regulations.

On March 23, 2004, Bass River Township submitted a post-hearing brief. Bass River Township claims that, because the amended petition was filed only 54 days before the evidentiary hearing, the Company "took essentially no steps to present or discuss the proposed relocation of the lines with the Pineland Commission or the Township." Additionally, notes the Township, "the alternatives proposed by the Township minimize the impact to the residents." Accordingly, Bass River Township calls upon the Board to deny Atlantic Electric's petition. Attached to the brief was a certification and a number of photographs.

On March 23, 2004, the Township of Eagleswood filed a post-hearing brief. Eagleswood notes that, due to the geography of the Township and the nature of the highways that run within its boundaries, nearly all the developable land is found between the Garden State Parkway and State Route 9. Eagleswood objects to the Petitioner's plan to run the proposed line along the Parkway into the Township, across the Parkway and connect to an existing right-of-way that currently carries a 69 kV system through the Township. Eagleswood claims that the Company's decision to transfer from the Parkway route to the existing right-of-way is "an obvious economic expedience solely for the benefit of the Petitioner to avoid the necessity of obtaining additional right-of-way." Also, because of the limited developable land in the Township, it is claimed, future development will be impacted by the current proposed line placement and the "construction of the proposed 230 KV line flies in the face of the orderly planning that has been effectuated by the Township."

The Township also notes the existence of community resistance and concern as to the possible health impact of electromagnetic field emissions, the possible impingement upon future development of the Eaglesnest Airport, and that the proposed crossing of the Parkway creates three disturbance points in an environmentally sensitive area that are not currently in place. Finally, the Township claims that a route west of the Parkway, using Pineland property throughout the Township, is "equally serviceable" and should be adopted. This route, claims the Township, while running through land that will require permits from the Pinelands Commission, would nevertheless be a better option and, the Township asserts, "the proposed alternate route could clearly be established so as to fully comply with the requirements of the Pinelands Commission and create a location that serves the purposes of the Petitioner and alleviates the deleterious effect of the proposed line upon the Township of Eagleswood, its residents, and its environs." No specific support or citation to the record is, however, provided. Accordingly, the

Township of Eagleswood calls upon the Board to require a relocation of the line to the west of the Garden State Parkway throughout its course in the Township.

On March 25, 2004, Commonwealth Shore Power, LLC, a participant in this matter, filed its post-hearing brief. Commonwealth indicates that it is in the process of developing a "340 megawatt gas fired turbin[e] generation station" in Hamilton Township, and has entered into a land purchase contract, has filed applications with the Pinelands Commission and the New Jersey Department of Environmental Protection, and has completed its PJM feasibility and impact study on the project. Commonwealth claims that the Board should not find the proposed line to be "reasonably necessary for the service, convenience or welfare of the public" because neither PJM nor the Company considered additional generation capacity in their needs calculations. This failure, claims Commonwealth, is compounded by the Board's failure to investigate the question of increased generation as a component of the upgrade and comes about from the Board's administrative procedures which "reflect a bygone era in which vertically integrated utilities with monopoly franchises had access to the full range of technologies to relieve impending reliability problems". Because of the changes in the industry, claims Commonwealth, and in the absence of evidence to the contrary, the Board must assume that the Company failed to consider possible generation issues and therefore the line proposal should be considered fatally flawed. Thus, the proposal should be denied or, in the alternative, additional hearings should be held to evaluate possible generation-based solutions to the possible impending reliability problems.

On March 26, 2004, Atlantic Electric filed its reply post-hearing brief. The Company acknowledges receipt of the comments by the Ratepayer Advocate and reserves its rights in the event of a rate proceeding. The Petitioner objects to the submissions of Eagleswood and Bass River as failing to raise new objections, as being repetitive of the discussion during the public and evidentiary hearings in this matter, and, perhaps most significantly, that the "alternative routes" proposed do not satisfy the burden required by the court in In re Public Service Electric & Gas Co., 35 N.J. 358 (1961) because the municipalities have failed to provide alternative routes that can be readily implemented. Atlantic Electric also takes exception to the attempt on the part of Bass River Township to introduce, through a post-hearing submission, an affidavit and pictures that substantially mirror items rejected by Commissioner Butler in an evidentiary decision made during the hearing.

As to the submission by Commonwealth Shore Power, LLC, the Company notes that none of the factual assertions made in the post-hearing brief are evidence and, as the Company has not been able to provide cross-examination of the statements made, they should not be considered. Furthermore, Atlantic Electric claims that the possibility of generation being used to satisfy the energy needs of the region was considered, and provides citations to the record in support of this claim. As such, the Company reasserts its request to have the Board grant its petition.

On March 30, 2004, PJM filed its reply post-hearing brief. As an initial point, PJM echoes the statement of the Company that the factual assertions provided by Commonwealth in its brief were not presented as evidence and are counter to the evidence submitted during the hearing process. The alleged generation facility, notes PJM, has not been presented to the Board through any evidence whatsoever, and direct testimony by PJM's witness, which is in evidence, indicates that any generation "solutions" provided by Commonwealth would not provide the necessary reliability benefits which could be realized through the currently proposed line upgrade. Additionally, PJM claims that merchant generators, such as Commonwealth, have the ability to respond and provide input to the process used by PJM to determine transmission

reliability. PJM points to testimony in the record that indicates that no merchant solutions have been proposed to PJM to mitigate or obviate the need for this line upgrade.

PJM also claims that Commonwealth pulled its proposed generation facility from the queue and resubmitted in a later queue, thereby requiring new feasibility and impact analyses. Accordingly, states PJM, the in-service date for the generation facility has been pushed back, assuming the facility is ever built, which is not guaranteed and to which Commonwealth has not yet committed to through an Interconnection Service Agreement. PJM additionally notes that the proposed line upgrade is designed to rectify two reliability issues – load deliverability and local overloads. The load deliverability issue refers to the lack of bulk transmission capacity to provide additional power to the region in the event of peak load conditions. The local overload issue, on the other hand, deals with the inability of the existing transmission facilities to deliver energy from the bulk transmission system to the eastern portion of the Atlantic Electric territory under higher than expected peak load conditions. Finally, PJM notes that Commonwealth had the opportunity to seek intervener status rather than participant status, and thus could have participated in the hearings if it wished. Its failure to avail itself to this option, claims PJM, should not serve as a basis for additional hearings. As such, PJM calls for the approval of the Company's petition.

On April 6, 2004, Commonwealth Shore Power, LLC submitted a reply post-hearing brief, more than a week after the deadline for reply papers in this matter. Nevertheless, Commonwealth claims that PJM did not and does not perform studies to look at the cost effectiveness or environmental impact of mixed generation / transmission solutions to the reliability issues addressed by the Company's proposed line upgrade. Additionally, the Board should engage in an environmental and financial review of other methodologies to determine the best "mix" of generation and transmission to alleviate the reliability issues, and the lack of evidence in the record stems not from Commonwealth's absence but from a failure on the part of PJM to present the evidence. Commonwealth also notes that generation facilities are more easily defended against terrorist and other activity and PJM's failure to consider this aspect "should be cold comfort to this Board and to the citizens of this State." Finally, Commonwealth claims that PJM's policy is not designed to provide incentives to merchant generation facilities because of artificially deflated pricing in load pockets such as the Atlantic Electric region. Because the merchant market is not functioning correctly, claims Commonwealth, PJM fails to consider the value and importance that can be made in the reliability arena by a facility such as Commonwealth's proposed generation plant. Accordingly, it is incumbent upon the Board to consider other, lower cost and lower environmental impact projects and therefore the petition by the Company should be denied.

In addition to the post-hearing briefs, a number of motions were filed. On March 18, 2004, Stafford Township filed a motion seeking to supplement the evidentiary record through the introduction of a report and map prepared by John J. Mallon, P.E., who appeared as a witness in the evidentiary hearing. Based upon the failure of Stafford to indicate any extraordinary circumstances as required under N.J.A.C. 1:1-18.5(c) for reopening of an evidentiary record, Commissioner Butler denied the motion via an Order issued on April 7, 2004.

On March 23, 2004, the Eagleswood Volunteer Fire Department, Inc. filed seeking intervener status. After review of the papers and the opposition submitted, Commissioner Butler found that the Fire Department had sufficient opportunity to participate in the case as it developed and failed to raise any basis for the lateness of the application. As such, Commissioner Butler, in an Order dated April 7, 2004, denied the application for intervener status.

Also on March 23, 2004, counsel representing Mignatti Companies a/k/a Heritage Point, LP and The Heritage Point Homeowners Association, Inc. ("Heritage Point") filed a motion seeking to intervene in the on short notice. Heritage Point noted that, because of the stipulation entered into between the Company and Barnegat Township, Ocean Township and Ocean County, which amended the initial proposed route for the transmission line in this matter, Heritage Point now found itself impacted by the stipulated line route. This motion was opposed by the Company and by the Township of Barnegat, and ultimately resulted in an Order by Commissioner Butler, dated April 7, 2004, granting Heritage Point participant status and setting forth a schedule for submission of post-hearing briefs. Heritage Point was granted until April 12, 2004, to submit its post-hearing brief and any responses were to be filed on April 13, 2004.

On April 12, 2004, Heritage Point submitted its post-hearing comments. In addition, Heritage Point requested that the full Board review and modify the Order of Commissioner Butler granting Heritage Point participant status but denying intervener status. Heritage Point's comments claim that the Stipulation entered into between the Company, Barnegat Township, Ocean Township and Ocean County will result in an increase of approximately $2 million, will impose additional Pinelands Commission approval requirements, will impact upon environmentally sensitive locations and will surround "an approved senior housing development of 921 dwellings with a 230 kV line leaving at least 100 homes less than 80 feet from the surprise route." Heritage Point claims that the stipulated route is four (4) miles longer, will require 71 new poles, and, most significantly to Heritage Point, the settlement is based upon the payments of $25,000 to Barnegat and $100,000 to Ocean Township, thereby making this not a settlement but "a deal." Finally, Heritage Point claims that the testimony presented does not adequately cover the newly proposed route and therefore the Board should approve the original route submitted by the Company prior to the stipulation.

On April 13, 2004, Atlantic Electric filed reply comments to the post-hearing comments of Heritage Point. In its comments, the Company reiterates its belief that the purpose of this proceeding is to address the purely municipal interest of zoning. The parties to the action, notes Atlantic Electric, are the company and the municipalities, not the individual land owners. Accordingly, the negotiations between the Company and the municipalities were not only proper but were the only possible course of action. Atlantic Electric further indicates its understanding that the interest that Heritage Point is attempting to protect is the "alleged diminution of value of real estate to be sold in the future, not the protection of the municipal zoning or master plan." Further, the Company claims that the proposed route must be appropriate, not perfect, and that the testimony presented throughout the proceeding supports the claim that the route, as proposed and amended through stipulation, is reasonable and practicable. Finally, notes Atlantic Electric, any requirements of the Pinelands Commission or other body are of no import into the Board's determination as the Company will address those issues with the appropriate bodies in an appropriate manner. Thus, Atlantic Electric asks that the petition, as amended, be granted.

Also on April 13, 2004, the Company submitted a "corrected Stipulation of Partial Settlement" The corrected Stipulation is claimed to "correct the legal description of the Pancoast Road right-of-way, and further clarifies the route of the proposed line from Pancoast Road to West Bay Avenue." Heritage Point objected to the submission of this correction and requested opportunity to provide comments on the corrected Stipulation.

II. FINDINGS OF FACT

A. The Need for the Proposed 230kV Transmission Line.

William H. Whitehead, General Manager of Transmission and Interconnection Planning in the System Planning Division of PJM Interconnection, LLC provided testimony to explain the results of the analysis that PJM performed to identify the reliability based need for the Cardiff to Oyster Creek transmission line project that is the subject of this Order. The testimony of Mr. Whitehead, who stated that PJM takes no position on the practicability of the route for the proposed line, can be summarized as follows. PJM is the Regional Transmission Organization ("RTO") for the Mid-Atlantic Region, which includes, among other utilities in this region, the Petitioner, Atlantic City Electric Company. As an RTO, PJM is responsible for the planning and operation of the electric lines that transport electricity to the lower voltage distribution lines that ultimately deliver the electricity to individual customers. PJM identified the need for the Cardiff to Oyster Creek 230kV transmission line upgrade in its 2000 Regional Transmission Expansion Plans ("RTEP"). PJM's analysis determined that Petitioner's 230kV transmission line project must be completed in 2004 to continue to ensure the reliability of the system under peak demand conditions. PJM recommended Petitioner's Cardiff to Oyster Creek 230kV transmission project to solve two reliability problems: (1) load deliverability; and (2) local overloads. In the event sufficient local generation is not available to meet the needs of local customers, sufficient bulk transmission capacity must be available to deliver energy from other parts of the PJM system to those customers during peak load conditions. Because of the few import lines from the Camden/Philadelphia area to feed the eastern portion of the Atlantic Electric territory, the loss of any one of those lines (i.e. the New Freedom to Cardiff 230kV line) affects the other lines (i.e. Landis to Minotola 138 kV line and the Landis to Dorothy 138 kV line). PJM performed a Capacity Emergency Transfer Objective / Capacity Emergency Transfer Limit (CETO/CETL) Deliverability Analysis of the Atlantic System. In that analysis, PJM determined that in 2004, the Landis to Minotola 138 kV line and the Landis to Dorothy 138 kV line would be thermally overloaded under peak conditions if the New Freedom to Cardiff 230 kV line were out of service. This event could result in thermal overloads that would require PJM to invoke emergency operations procedures. Although Petitioner had considered alternatives to the Cardiff to Oyster Creek 230kV transmission line project, Petitioner and PJM determined that none of the alternatives would be superior to the project which is the subject of this Petition in terms of how far into the future the project would accommodate load growth. Mr. Whitehead further testified that given the time-sensitivity of this project, it must not be further delayed. Mr. Whitehead also stated that the Cardiff to Oyster Creek 230 kV transmission line is necessary to relieve reliability problems identified in PJM's base line analysis and that alternative generation projects, such as that proposed by Commonwealth, would not eliminate the need for the transmission line. Moreover, Mr. Whitehead stated that at the time PJM studied Commonwealth's generation project, Petitioner's Cardiff to Oyster Creek 230 kV line was assumed to be in service because the in-service date was originally May of 2004. Mr. Whitehead concluded his testimony by stating that there are no other alternatives to Petitioner's Cardiff to Oyster Creek 230 kV transmission line project that meet the needs that PJM has identified to address the reliability violations.

Frank Caroselli, Senior Project Engineer with the Company's Transmission Planning Department, described the detailed evaluation of the Company's system requirements, which were undertaken. Mr. Caroselli testified that in the year 2000, the Company performed transmission planning studies to assess the future needs of the Petitioner's transmission system. Those studies determined, among other things, the need for additional reactive supplies and additional thermal delivery capability into the eastern part of the Atlantic Electric

region. In response to that need, Petitioner developed several transmission expansion plans in order to insure the reliability of electric supply for the Petitioner's present and future customers. Among the alternatives, the Petitioner selected a plan which is the subject of this proceeding. As part of an emerging process this plan was submitted to the PJM power pool that, as Administrator of the regional transmission expansion plan process, has the responsibility for consolidating the region's transmission needs under the RTEP process. This process is driven by the comprehensive transmission service needs of the region, and is developed based on input from transmission owners, generation developers, market participants and others.

Mr. Caroselli stated that the plan that was selected was chosen for several reasons. During the studies performed, it was determined that additional reactive supply and thermal delivery capability was necessary to address the conditions identified in the studies. Specifically, the eastern portion of the system was subject to probable widespread low voltage occurrences should the Petitioner experience the outage of the new Freedom Cardiff 203kV line or a generating unit at the BL England Generating Plant. Further, with continued load growth, the Petitioner would be unable to transmit enough power into the eastern portion of the service territory. Additionally, thermal and reactive limitations in the Petitioner's ability to supply local load in the West Creek area, which is comprised of Southern Ocean County and Long Beach Island, were forecasted to occur.

Mr. Caroselli concluded that the Cardiff to Oyster Creek 230kV project, inclusive of the Cardiff static var compensator ("SVC"), would significantly increase the thermal delivery capability into the eastern portion of the service territory, would provide a significant increase in eastern reactive supply, and would insure adequate transmission delivery capability to the West Creek area.

B. <u>The Need for a 230kV Line to be Constructed and in Service by 2005.</u>

Mr. Caroselli further stated that the Petitioner, recognizing that delays in the approval of the 230kV project would result in completion of construction of the project after the 2004 summer, has implemented interim measures. These measures, which are for the most part temporary, will help insure compliance with reliability criteria given the forecasted demand for electricity for the 2003 summer, in the absence of the 230kV project. Specifically, a substation upgrade is being completed at the Landis Substation, which will provide some increase in the delivery capability and which will provide a modest increase in delivery capability from Landis to the east for the summer 2004. Also, emergency diesel generators are being placed at Ship Bottom and Beach Haven Substations and mobile transmission capacitors are being placed at Cedar and Motts Farm Substations. These interim measures do not, however, eliminate the need for the 230V project. As the demand for electricity in Southern New Jersey is forecasted to continue to grow, by summer 2005 the Petitioner will again face potential overloads on its facilities unless the 230kV project is completed.

C. <u>Other Alternatives Considered by Petitioner.</u>

Mr. Caroselli identified other alternatives that were considered by the Petitioner for upgrading the transmission system. There were two areas of concern, which governed the selection of alternates to evaluate: (1) the eastern system due to both reactive supply limitations and thermal import capability limitations; and (2) the West Creek area, which is a high growth area within the eastern system inclusive of Long Beach Island, that was and is becoming too heavily

loaded to be adequately served by the three existing 69kV lines feeding that area. The witness noted that with two areas of concern, it made sense to develop an expansion plan that rectified both areas at the same time. The utilization of this unified approach, would rule out the consideration of certain "piecemeal" alternatives. For example, an upgrade of the Lewis 138kV circuits, while providing an incremental increase in eastern transmission delivery capability, would not address the needs of the West Creek area. Conversely, upgrades that address the West Creek area, such as upgrading both the #1 and #2 Lewis-Motts Farm-Cedar 69kV lines to a higher capacity 69kV plus the installation of a static var compensator at an eastern location, were found to be inadequate in terms of meeting the needs of the eastern system as a whole.

Focusing on the unified approach, another alternative considered by the Petitioner was to upgrade the Sands Point-Cedar and #1 Lewis-Motts Farm-Cedar 69kV lines to 138kV in conjunction with an SVC at an eastern location. While this plan was viable the Petitioner determined that the 230kV plan was superior in terms of how far into the future it could accommodate load growth.

Mr. Caroselli also noted that other plans that were considered, but not evaluated, were double circuiting the existing New Freedom-Cardiff 230kV circuit or the Sands Point-Cedar 69kV circuit. These were not evaluated since, per planning criteria, any double circuit facility is required to be analyzed as a single outage. Since it was known that the outage of either the single circuit New Freedom-Cardiff 230kV circuit or the single circuit Sands Point-Cedar 69kV circuit would result in violations of the reliability criteria in the 2003/2004 timeframe, the Petitioner inferred that an outage of the double circuited New Freedom-Cardiff 230kV circuit or a double circuited Sands Point-Cedar 69kV circuit would also result in violations of the reliability criteria, if so constructed.

D. Cost Analysis Performed as Part of the Process.

Mr. Caroselli indicated that while initially the 138kV plan looked favorable due in part, to an initial lower cost, ultimately, the 230kV plan was selected. This was because taking into account all pertinent factors, including the project cost and such items as the duration of the solution, the proposed 230kV project is the most cost effective solution in the long term, and once built, provides infrastructure for potential growth and development in the area. Even though the 138kV plan would be less expensive upfront, the timing of the next major upgrade to the Atlantic Region System would be much sooner, because of the shorter duration solution. In addition, the cost in constructing the 230kV project, as opposed to the 138kV project, is not significantly greater.

E. The Route of the Proposed Line.

Frank Sobonya, Team Lead Engineer with the Company's Transmission Civil Engineering Department, testified, at length, regarding the route for the proposed line. Mr. Sobonya provided extensive testimony regarding the process by which the Petitioner identified the proposed route, which is the subject of this proceeding. Mr. Sobonya stated that following the results of the need analysis, which concluded that a 230kV transmission line was needed from Cardiff to Cedar Substation and from Cedar to Oyster Creek Substations by Summer 2005, Petitioner evaluated several options. The original petition to rebuild the existing #1 line from the Lewis Substation to Cedar Substation, and the existing 69 kV line from Cedar Substation to Sands Point Substation was filed on September 28, 2001. The first two public meetings that were held after the petition was filed were in Galloway Township and the City of Port Republic.

Opposition to the proposed route came from the general public and county and local governmental officials as well as from published newspaper articles and editorials. As a result of the opposition to the proposed route, Petitioner withdrew the petition.

Subsequently, the Company investigated whether the 230 kV line could be built on private right-of-way along the Garden State Parkway through the Galloway Township and Port Republic portion of the line. In its evaluation, the portion of line from Cardiff to the Parkway in Right-of-way #106 remained the best alternative. From this point, Mr. Sobonya testified that the line could be built on either side of the Parkway. However the western side of the Parkway had only about one-third the amount of properties as the eastern side of the Parkway. In order to minimize the impact on existing residential properties, the Petitioner decided that private right-of-way along the western side of the Parkway would be the best route for the new 230 kV line. Petitioner filed the Petition which sited the transmission line along the Garden State Parkway, and which is the subject of this Order, on August 9, 2002.

Once the "Parkway" route was chosen through Galloway Township and the City of Port Republic up to the Mullica River, the existing transmission corridor remained the best route for the new line. After this route crossed the Garden State Parkway at Stage Road, the line was to be on private right-of-way, adjacent to the eastern side of the Parkway toward the Cedar Substation. As the private right-of-way route investigation continued, it became apparent that the route could not be completely located on private right-of-way because in several locations residences very close to the Parkway prevented the line from being built. The route was modified slightly by moving the centerline 50 feet onto the Parkway from private right-of-way. When it appeared that the route set forth in the petition might not be available, Petitioner filed the Amended Petition that sets forth the route described herein.

For the portion of the line from the Cedar Substation to the Oyster Creek Substation, several routes were evaluated. The first section of that line which was evaluated was from the Cedar Substation to the Garden State Parkway. The existing Right-of-way #311 did not appear to be a feasible route because of the very close proximity of homes to the line. The route chosen follows McKinley Avenue and the East Connector Road to Route 72, through commercial corridors. The original plan was to replace the existing distribution poles on the north side of Route 72 to the Parkway. Upon further research, it was discovered that New Jersey Department of Transportation has potential plans to widen the northern portion of Route 72. The line was moved to the south side of Route 72 to avoid conflict with this future highway project.

Once at the Parkway, the line followed the Parkway to Bay Avenue, along the southern side of Bay Avenue to Right-of-way #311. The remainder of the 230 kV line would replace the existing 69 kV line in this right-of-way to the Oyster Creek Substation.

Consideration then had to be given to the type of construction to be used. Several alternatives were considered which included direct buried steel poles, steel poles with vibratory caisson foundations, wood poles in large H-class and laminated wood structures. Due to the limited width of right-of-way that is available, vertical or delta configurations on single shaft poles were the only options considered.

The use of steel rather than wood poles was deemed to be most appropriate from an engineering standpoint due to the span lengths involved. Wood poles were only technically possible for some of the short span construction. However due to the greater deflections of a

wood pole, wood poles were removed from further consideration. Over the life of the line, steel poles will require less maintenance, protect against potential woodpecker damage and provide better support for the 230 kV conductors. Steel poles are also far superior to wood poles for any longitudinal loading, which could be imposed, on the structure. Longitudinal loads can be imposed on the structure by various means such as broken conductors, ice imbalance, and the like. Petitioner lowered most of the proposed pole heights along the transmission corridors to match the height of the existing poles.

A corrected Stipulation of Partial Settlement has been entered into among Respondents Barnegat Township, Ocean Township and Ocean County, and it amended the proposed route. In light of the objection by Heritage Point, and the inability of Heritage Point to provide comments on the corrected Stipulation, the Board has "carved out" the element of the route covered by the corrected Stipulation. The Board will hold a hearing and will decide on the route covered by the corrected Stipulation at a later date.

Mr. Sobonya testified regarding other alternatives considered by the Petitioner. Only two 69kV lines connect Lewis and Cedar Substations and only one 69kV line connects Cedar and Sands Point Substations. While Petitioner examined rebuilding each of these lines for 230kV the witness noted that very few viable options exist for a line of this type with the exception of some portions of the existing corridors on the Parkway. The alternative selected by Petitioner demonstrates that it is the most appropriate route since it uses existing impacted right-of-ways for 48% of the line and private easements, or lands of the Garden State Parkway for the remainder of the line. Mr. Sobonya further testified that in most areas of the line, the pole heights would be approximately 55 feet above ground. Along Route 72 in Stafford Township, Ocean County, the pole heights will be 75 to 80 feet above ground. The two steel poles at the Mullica River crossing will be approximately 170 feet in height to satisfy United States Army Corps of Engineers clearance requirements. Those poles that are 55 feet in height with compressed conductor separations will result in a minimum ground clearance of 25 feet, which exceeds the minimum ground clearance required by the National Electrical Safety Code ("NESC").

The testimony of William E. Pyle, Jr., Supervisor of Right-of-Way within the Company's Transmission and Distribution Engineering Department, which was graphically illustrated by the aerial photograph, demonstrated that the area along the proposed approximately 47 mile line varies greatly. At the southern end of the line within Egg Harbor Township, the first four miles passes through a residential/commercial area along existing right-of-way #106. The next 11.3 mile section of line in the Townships of Egg and Galloway and the City of Port Republic is intended to be built along a portion of the Garden State Parkway that is mostly forest. There are some residential properties in Galloway Township along Ash Avenue and in the City of Port Republic that will require new easements for the line. The next 7.0 miles of line in Bass River Township is intended to be built on an existing right-of-way through the forested property of Bass River State Park with a small portion built along an existing roadway. Moving north, the next 6.8 miles of line in the Townships of Bass River, Little Egg Harbor and Eagleswood will be built on Parkway property on the west side of the Parkway and along an unimproved road known as Province Road. This section is through forested land with no nearby residences. The next 4.5 miles into Petitioner's Cedar Substation will be built on existing right-of-way through Eagleswood and Stafford Townships and is mostly wooded with some nearby individual residences. Leaving Cedar Substation 7.0 miles of line in Stafford Township and Barnegat Township will travel along State Route 72 along which are various commercial properties, along the east and west sides of the Garden State Parkway through forested lands, and south of Bay Avenue in Barnegat Township through mostly forested lands and an existing gravel pit area.

The remainder of the line will be built through the Townships of Barnegat, Ocean and Lacey on existing rights-of-way through mostly forested areas.

Mr. Pyle testified that the proposed right-of-way will utilize new rights-of-way from the Garden State Parkway and other governmental agencies as well as private rights-of-way adjacent to the Parkway in Galloway Township and the City of Port Republic in Atlantic County and private rights-of-way south of Bay Avenue in Barnegat Township in Ocean County. While much of the right-of-way is to be constructed with already impacted rights-of-way, some of the proposed route does pass through the Pinelands Preservation Area. Within its approximately 50-mile length, the proposed line parallels an existing state highway and various local and county roads are crossed at several locations. There are waterway crossings over the Mullica River and the Bass River.

There are no commercial or residential structures within the proposed right-of-way to be removed except for existing facilities owned by the Petitioner that will be replaced by this proposed project. There are a few residential and commercial structures within 50 feet of the edge of the existing right-of-way #106 within the Township of Egg Harbor. Through Galloway Township and the City of Port Republic, there are approximately ten residences that will be within 50 feet of the edge of the proposed new right-of-way. Through Bass River Township the edge of the existing right-of-way #153 passes within 50 feet of five residences. There are no structures within 50 feet of the edge of the proposed right-of-way in Little Egg Harbor Township. In Eagleswood and Stafford Townships there are approximately six existing residential structures within the edge of the existing right-of-way #217 and a few commercial structures along Route 72. In Barnegat Township, there are no structures located within 50 feet of the edge of the right-of-way, nor are there any in Ocean and Lacey Township. Within the proposed right-of-way, there are no schools, hospitals, nursing homes or other public buildings.

Although the local land use and zoning ordinances and master plans of the respective municipalities and counties through which the existing and proposed right-of-way passes do not, in each instance, expressly provide for electric transmission lines, or in some instances, even prohibit same, the proposed transmission line is a land use which qualifies as an inherently beneficial use. Furthermore, Mr. Pyle noted that there is no practicable alternative which would lessen the impact of the line; and credible evidence supports the conclusion that the proposed transmission line can be constructed without substantially impairing the intent of the local zoning plan or zoning ordinances without an adverse impact upon local land use patterns, whether existing or proposed. More particularly, the proposed project involves the use of poles with heights which will now be approximately 55 feet above ground. In some locations, along Route 52 in Stafford Township, Ocean County, the pole heights will be 75 to 80 feet above ground. The two steel poles at the Mullica River crossing will be approximately 170 feet in height to satisfy Army Corps of Engineers clearance requirements. Those poles that are 55 feet in height with compressed conductor separations will result in 25 feet minimum ground clearance which exceeds the minimum ground clearance required by the National Electrical Safety Code. The use of poles which heights that are consistent with existing pole heights within the rights-of-way will lessen any visual impact upon the surrounding areas.

It was recognized that in addition to the zoning and land use ordinances, the proposed transmission line will deviate from other requirements of the land use and zoning ordinances and of the master plans of the respective municipalities and counties, and the rules and regulations promulgated thereunder particularly with respect to lot, width and size and possible front side and rear yard setback requirements. Site plan approval and/or construction permits or other permits or licenses might otherwise also be required by certain of the land use ordinances

or other ordinances or regulations promulgated under the authority of the Land Use Act of the State of New Jersey. Petitioner has filed this application to seek relief there from and to obtain a determination that said ordinances, rules and regulations shall have no applicability to the proposed transmission lines, and that Petitioner shall have no obligation to conform thereto or comply therewith.

Testimony was presented by John J. Mallon, P.E., Engineer for Eagleswood Township, regarding an alternate route that would site the transmission line within Eagleswood Township along the west side of the Garden State Parkway. In support of this alternative, Mr. Mallon stated that there is very little development on the west side of the Parkway and that by relocating the line in this area, it would be within the "clear zone" of a proposed expansion of the Eagles Nest Airport. On cross-examination, Mr. Mallon acknowledged that the proposed route is located within an already impacted 69kV right-of-way in Eagleswood Township. He further acknowledged that the route which Eagleswood Township has suggested would site the line within the Pinelands Preservation Area and that to his knowledge no permits have been issued by the Pinelands Commission for electrical facilities within the Preservation Area.

Testimony was also presented by The Honorable T. Richard Bethea, Mayor of Bass River Township, identifying two alternate routes for the proposed transmission line. On cross-examination, Mayor Bethea acknowledged that Option 1, as proposed by the Respondent, Bass River Township, would site the line through wetlands. He further noted that Option 2 would also site the line through wetlands as well as public lands, for which Petitioner does not have the power to condemn.

Taking into consideration the testimony presented by the Petitioner and the Respondents, Eagleswood Township and Bass River Township, Petitioner has established, through the introduction of credible and competent evidence, that the route of the transmission line, as proposed, is the most appropriate and that there is no reasonable practicable alternative which would have less adverse impact upon the environment or upon the land use and zoning ordinances of the respective counties and municipalities; or which would permit Petitioner to provide adequate and reliable service in a timely manner. The evidence presented with regard to the alternatives which were capable of being considered, and the reasons for rejecting each of those alternatives as inappropriate or impracticable, was credible and is deemed sufficient to support Petitioner's decisions. Likewise, the approval by the affected municipalities of the Stipulated route through Barnegat Township, Ocean Township and Ocean County provides support for the determination that the route, as amended, is appropriate, especially in terms of the impact upon the land use and zoning ordinances of the individual municipalities and county.

F. <u>Employment of Prudent Field Management.</u>

Mr. Sobonya provided detailed testimony regarding the implementation of modest expenditures in the design of the transmission line which results in a lowering of magnetic and electric fields to less than what would otherwise be experienced had such measures not been undertaken. Mr. Sobonya stated that the phasing of the new 230kV line and existing transmission and/or distribution corridors has been selected to provide cancellation of the magnetic fields wherever possible. Short span construction in these corridors, compact phase spacing and conductor heights greater than required by the NESC because of the distribution underbuild will reduce magnetic field levels. For the new 230kV line, a larger diameter conductor will be used which will reduce electric fields at the edge of the right-of-way. The conductors themselves will be attached using a vertical or a delta configuration with the distances between the conductors

compressed. The pole height, the compressed conductor separations and the minimum ground clearance result in a lowering of the magnetic fields as compared with comparable line loading on a horizontal configuration H-frame line. While the electric fields associated with the operation of the 230kV line segment will be higher than the electric fields from the existing 69 and/or 138kV lines in existing transmission rights-of-way, the electric fields will be less than the New Jersey guideline at 3kV/M at the edge of right-of-way.

G. <u>The Design of the Transmission Line.</u>

Testimony concerning the design of the proposed transmission line was presented primarily by Mr. Sobonya. In addition, exhibits were presented into evidence including, among other things, depictions of the typical type of poles to be constructed within the right-of-way. For the 230kV line, Petitioner will utilize 1,590 kcmlACSR conductors to be attached to the poles using either post or braced post assemblies using polymer insulators. Horizontal polymer post insulators will be used for span lengths up to 215 feet and braced polymer insulator assemblies will be used for span lengths in excess of 215 feet. There will also be a fiber optics ground wire attached near the top of the poles. The ground wire portion of the fiber optics cable services as a lightning protection for the 230kV phase conductors. The fiber portion of the cable will also allow the Company to interconnect relay equipment at the substations and will be available for other internal Company use. The maximum normal current carrying capability of the 1590 ACSR conductor is 1,632 amps and the maximum emergency rating is 2,020 amps. The above ratings are based upon a maximum conductor temperature of 125 degrees Celsius and an ambient temperature of 35 degrees Celsius. The typical tangent poles, which have been selected for the 230kV line, will be single shafted weathering steel poles. The steel poles at the Mullica River Crossing will require taller poles to satisfy Army Corps of Engineers clearance requirements. Dead end and large structures may also vary in height from the typical tangent poles. The remainder of the steel poles for this line are planned to be directed embedded, similar to what would be done for a conventional wood pole, except where poor soils would dictate a special foundation type.

In describing the manner and method in which the poles will be constructed, Mr. Sobonya testified that the poles are intended to be direct embedded for short span construction. At each pole location, a hole at least one foot in diameter larger than the bottom diameter of the pole will be augered to a depth of at least ten percent of the pole length plus two feet. The pole will then be placed in the hole and backfilled with native or crusher run stone. In wetlands areas, to the extent possible, the Company intends to erect the poles and remove the existing wood poles by using existing access roads or, by creating temporary access roads through the use of maps. Some all-terrain type vehicles may also be used in wetland areas. In further consideration of the wetland areas, the Petitioner may install some steel poles within the more sensitive wetland areas using helicopters. Mr. Soboyna noted that the Petitioner was the first utility in the country to use helicopters to carry, operate and support vibratory hammers used to drive steel caissons. This procedure was utilized in several locations along right-of-way #168 as part of the Company's Churchtown-Cumberland 230kV transmission project. He stated that it is the intent of the Petitioner to utilize the same procedure with this project, to the extent practicable, so long as such procedure is acceptable to the installation contractor. Where utilized, this procedure allows for minimum disturbance within wetland areas and eliminates the need for movement of heavy equipment, such as cranes and trucks, within those more sensitive portions of the right-of-way. To the extent the helicopter installation is used, staging areas will be located off site and the materials will be brought to the site by helicopter. It is contemplated that the poles will be installed to the foundation using traditional steel pole construction techniques unless

installation by helicopter is found to be more cost effective and practical for certain sections of the line. The engineering design of the proposed 230kV and 69kV transmission lines complies with the following codes and standards: The National Electric Safety Code 2002 Edition; The American Institute of Steel Construction, and Associated ANSI Standards; and The American Concrete Institute. This line will also be designed to meet or exceed the design requirements for 69-500kV PJM transmission lines which for the most part are more stringent then the current NESC. Robert Jubic, the Company's Manager of Environmental Services, provided testimony concerning regulatory permits which will be obtained. Those permits and approvals include the United States Army Corps of Engineers; New Jersey Pinelands Commission; New Jersey Department of Environmental Protection which includes waterfront development, coastal and freshwater wetlands permits, Division of Tidelands Licenses, and Green Acres Authorizations. In addition, consultations will be held with U.S. Fish and Wildlife (rare, threatened and endangered species signoff); National Marine Fisheries (rare, threatened and endangered species signoff); State Historical Preservation Office (cultural resource reviews); and State Fish and Wildlife (rare, threatened and endangered species). Notification will also be issued to Indian Tribes and other interested parties.

H. Environmental Impacts Associated with the Project.

Mr. Jubic also testified that although there will be impacts associated with the line, those impacts will be minimized throughout route selection and the design phase. In the route selection phase, aerial surveys were conducted of possible routes to create digital base maps. Existing Geographic Information System ("GIS") maps of environmental data such as Pinelands areas, state coastal and fresh water wetlands, and 100 year flood plain, were overlaid on the route base maps to determine potential impact areas. To the maximum extent practicable, existing right-of-way was used or the route was placed adjacent to existing roadways and highway corridors. Because some of the existing rights-of-way in those areas were heavily developed residential areas, the Petitioner chose alternate routes. Once potential routes were identified, field surveys were conducted in order to map wetlands and identify potential threatened and endangered species habitat. Efforts were made to avoid sensitive areas by spanning them. In the event those areas could not be avoided, notes were made on the plans so that protective measures would be employed during the construction phase. He stated that the Petitioner recognizes that this area of southern New Jersey is a major aviary migratory route and that the Company will incorporate the Edison Electric Institute's "Suggested Practices for Raptor Protection on Power Lines" avian protection recommendations into the line design in order to minimize the potential for the electrocution of large birds of prey.

Mr. Jubic further testified that the Petitioner will use protective measures during the construction phase such as matting or the use of all-terrain vehicles through wetlands areas to minimize the temporary impacts. Matting consists of steel, timber or plastic sheets to evenly distribute the weight of the construction vehicles traversing the wetland areas in order to minimize the disturbance to the soil or vegetation. Areas that are disturbed will be restored to the original surface contour and stabilized with the appropriate seeding and/or mulch. The use of sediment barriers, such as silt fences, shall be used for work adjacent to streams or adjacent to wet areas to prevent the flow of sediments into the stream/wet areas. Whenever possible, vehicles and equipment will be parked over night to avoid or minimize additional disturbance to egress and ingress to and from the work site. Work activities will be coordinated in such a manner to minimize the manner and frequency the vehicles are in the work areas. There will be no equipment storage or staging areas within any wetlands areas. He stated that consideration is being given to the use of helicopters within the more sensitive environmental areas that would

eliminate the need for permanent access roads and would minimize both the amount and type of equipment required to enter the remote areas. In addition, time or seasonal restrictions on construction activities may be implemented in order to minimize impact to threatened and endangered species. Where the Company proposes pole for pole replacement within existing rights-of-way, there will be virtually no impact. Where new poles are being constructed, the impact will be limited to the surface area of the pole base or its foundation.

The evidence presented by Mr. Jubic supports the conclusion that the project represents the most reasonable and practicable alternative available for the proposed 230kV transmission line.

I. Underground Construction of the 230kV Line.

Mr. Sobonya and Mr. Jubic testified that there is no rational basis to support the use of underground construction for the line. In addition to cost considerations, technological concerns and operation and maintenance limitations, underground cables, particularly where significant wetlands areas exist, present the potential for serious adverse environmental impacts. In addition, Mr. Sobonya provided testimony that Petitioner has generally built transmission lines overhead rather than underground whenever it has been physically practical to do so. Much of the route of the proposed line is in rural right-of-way. The remainder is either along the Garden State Parkway, Province Road or existing impacted transmission line corridors. Because of the remote nature of some portions of the right-of-way and because it traverses wetland areas and crosses several waterways inclusive of the Mullica and Bass Rivers, any underground installation in these areas would also have to include submarine cable installation. Underground and submarine cable installation have historically ranged from a multiple of between six to nine times the cost of overhead transmission construction depending upon the construction technique, topographical conditions, right-of-way acquisitions and other variables.

Moreover, the use of underground construction can result in longer outages and service restoration periods due to the complexity of identifying and repairing the source of a fault within an underground or submarine line, particularly within some of the remote areas traversed by this right-of-way. A faulty submarine cable can take from one week to one month to locate and repair. In addition, the disturbance caused by the construction equipment necessary to construct and maintain underground and submarine cables within these remote areas, particularly the wetland areas, can result in significant adverse environmental impact, requiring much more extensive disturbance of the soil than overhead construction.

Cost is also a major factor in selecting an appropriate construction technique. Mr. Sobonya provided testimony that the overhead line costs associated with this project have been estimated to be approximately $37 million, inclusive of poles, insulators, conductors, related hardware and right-of-way acquisition. This cost projection also includes engineering and labor costs associated with the transmission lines themselves. For comparative purposes, preliminary cost estimate for underground construction was requested from an independent consultant, Power Engineers. The estimated projected cost for solid dielectric cable would range from approximately $200 million to $300 million. Mr. Sobonya testified that to put this into prospective, this amount exceeds the Petitioner's capital budget for the entire service territory and that the cost differential, as great as it is, does not include the additional increased cost associated with stocking new inventory such as cable, terminations and splices. Moreover, Mr. Sobonya stated that the history of the long term performance of 230kV solid dielectric cable is unknown at this time. In addition, should it be proven that solid dielectric 230kV cable and accessories are reliable over the long term, the availability of the circuit, especially during peak

load periods could be much less than that of a comparable overhead line. The main reason for the reduced availability is that the time to repair a 230kV underground cable, splice or accessory is usually much more than the repairs that may be necessary for the most overhead line fault. The Petitioner has no underground transmission facilities operated at 230kV level. In addition, the technology necessary to install, maintain and repair such underground cable would itself impose additional economic, technical and labor burdens upon the Petitioner. The setting of much of this right-of-way poses not only special construction problems for underground transmission lines, but also presents the potential for adverse environmental impact as testified to by Mr. Jubic. Right-of-ways for underground cables would require the root systems to be removed along the right-of-way to a depth of at least six feet even in wetland areas. The root systems of all tress removed within an overhead transmission line corridor would remain except for the area in the vicinity of the structure foundation.

The testimony provided by the Petitioner supports the conclusion that there is no justifiable basis to use underground construction.

J. Electric and Magnetic Field Strengths and Prudent Field Management.

Mr. Sobonya testified as an expert on transmission design and presented data concerning electric and magnetic field ("EMF") calculations. Mr. Sobonya's testimony was supported by the testimony of Dr. William H. Bailey, Principal Scientist and Director of Exponent, a research and consulting firm.

There are no federal standards for either magnetic or electric fields at power frequencies. The States of New York and Florida have specified that magnetic fields for new transmission lines and maximum loading should not exceed 200 milligauss ("mG") or 150mG, respectively. The proposed line will meet the requirements of the National Electric Safety Code (NESC 2002) and the electric field at the edge of the right-of-way will be well below the interim guideline of 3kV/m for the maximum electric field at the edge of right-of-way in the State of New Jersey (NJCRP, 1981) for new transmission lines. Testimony was presented concerning the concept of prudent field management and the practices which have been adopted by Petitioner. These practices, many of which are driven by design and other practicable considerations, do operate to reduce or limit electric and magnetic edge of right-of-way field strains which might otherwise be generated were such practices not to be utilized. Those modifications, which are capable of being accommodated at little or no cost, include, but are not limited to, the use of single shaft steel pole structures rather than lattice towers or H-frame type structures; a delta conductor for configuration rather than vertical or horizontal configuration; utilization of a minimum ground clearance of 25 feet rather than lower minimum ground clearance of 22.4 feet which is permitted by the National Electric Safety Code; and compaction of the phase separation distances. In addition, Petitioner is utilizing, in many instances, an already impacted right-of-way. Through the testimony of Mr. Sobonya and Dr. Bailey and the related exhibits, it was also demonstrated through computer modeling, that the calculated electric and magnetic field from the proposed transmission line in some instances will result in lower magnetic fields at the edge of right-of-way for the 230kV line as compared with the existing line. Dr. Bailey further testified that the delivery of power at 230kV will result in lower magnetic fields than delivery of the same amount of power at lower voltages. Furthermore, Petitioner has worked diligently in the past several months to identify the route that minimizes encroachments on residential land uses by following existing rights-of-way (22.4 miles) and the Garden State Parkway (9.7 miles) so that only about ten percent of the entire route would involve construction on a new route. Minimizing

encroachments on residential land use has the effect of also reducing potential exposure to EMF.

The expected electric and magnetic field levels produced by the proposed 230kV transmission line in the year 2008 were calculated by Dr. Bailey's associate, Dr. Gary Johnson, and compared to those produced by existing transmission lines on the proposed corridor in 2001-2002. The magnetic fields from existing transmission lines and the proposed transmission line were calculated for average loading (current flow) under normal operating conditions. The magnetic field was also calculated for peak and minimum load flow conditions for normal system operating conditions. Dr. Bailey summarized the results of the updated field calculations and testified that Dr. Johnson calculated electric and magnetic fields along transects perpendicular to the transmission lines at the point of minimum ground clearance for each of 15 sections of the proposed route between the Cardiff and Oyster Creek Substations. Calculated values were compared for conditions before (existing) and after proposed construction of the proposed transmission line. While the electric fields from power lines are quite stable, the magnetic fields vary with current flow. A table was produced which showed the magnetic fields for average system power flow. At times of peak and minimum system demand, which occur much less frequently, current flows and magnetic fields from transmission lines will tend to be higher or lower, respectively. For some sections of the corridor, it was found that the pattern of current flow on the lines during system peak load demand will result in lower magnetic fields at the edge of the right-of-way than during system average load demand. Conversely, at moments of minimum demand, the magnetic fields can be higher at the edge of the current right-of-way. Electric fields vary relatively little with current flow so the value shown on the exhibits are representative of electric field values from minimum, average or peak flow conditions. Dr. Bailey testified that the intensities of the electric and magnetic fields are the highest closest to the conductors and diminish rapidly with distance from the conductors; the intensities of electric and magnetic fields vary greatly along the length of the proposed corridor both before and after construction of the new line; and that except for sections of the proposed corridor for which there are no existing transmission lines, the EMF levels at average loadings will not change very much. Before construction, the highest average magnetic and electric fields at the edge of the right-of-way from the existing transmission lines are about 15mG and 0.23kV/m respectively. For the same operation conditions after construction, the highest field values will be about 18mG and 1.4kV/m respectively. Dr. Bailey further testified that the overall magnetic field values are quite low. The level or intensity of fields calculated or measured at any specific point in the environment (for example 18.3 mG at the southeast edge of Section 12-13) does not represent a person's long-term average exposure to magnetic fields. A person's long-term exposure represents his or her integrated exposure over all locations where he or she spend time, e.g. home, school, work, travel, rather than a single value at a specific time and location. Therefore, the magnetic field level at the edge of the right-of-way is not an important source of a person's overall exposure because he or she is unlikely to spend very much time every day at the transmission line. People spend more time in their residence than in any other location and so the fields in the home typically dominate a person's long-term exposure. However, residences are farther from the line then the edge of the right-of-way and therefore the contribution of the transmission line is a time-waited average exposure of occupants would be much smaller than calculated values that the right-of-way might suggest.

The credible testimony presented and the evidence as introduced support the conclusion that the proposed transmission line intended to be constructed by Petitioner will not result in either magnetic or electric field strengths at the edge of right-of-way substantially dissimilar to those generated by other transmission lines within Petitioner's service territory, whether at 69kV or 230kV levels; that the electric and magnetic field levels are substantially similar, and even less

than those field levels associated with existing 69kV transmission facilities of Petitioner; that these field levels are substantially similar to fields levels associated with existing transmission facilities and operations throughout the United States; and that Petitioner has incorporated sufficient reasonable examples of prudent field management practices into the design and siting of the proposed transmission lines. The credible testimony of Dr. Bailey also demonstrates that the field levels associated with the proposed series of transmission lines are substantially similar to the field levels experienced during day to day activities.

K. Medical and Public Health Reports Experts.

Since 1986, Dr. William H. Bailey, Ph.D., whose practice specializes in exposure assessment and the health sciences, has been a visiting research scientist at Cornell University Medical College. He has also been a visiting lecturer at Rutgers University, the University of Texas (San Antonio) and the Harvard School of Public Health. From 1983 to 1987, he was head of the Laboratory of Neuropharmacology and Environmental Toxicology at the New York State Institute for Basic Research. For the nine previous years he was an Assistant Professor and Post Doctorate Fellow in Neurochemistry at the Rockefeller University. Dr. Bailey has studied and conducted research on electric and magnetic fields for 20 years. His research has included laboratory, exposure assessment and epidemiological studies concerning alternating current (AC) electric and magnetic fields and studies on direct current (DC) electric fields and air ions.

Dr. Bailey testified that some studies over the past 30 years indicate that electric and magnetic fields from a variety of electrical sources, including power lines, have been linked to cancer and some other illnesses. The most comprehensive review of epidemiology studies and other data was performed by Dr. Bailey and other scientists in a working group drawn from ten countries on behalf of the International Agency for Research in Cancer ("IARC"), a Division of the World Health Organization. The conclusion of the 395-page report published in 2002 was that the strength of the scientific evidence was inadequate to establish a link between EMF and risk of any disease, with the exception of childhood leukemia. Dr. Bailey elaborated that some epidemiology studies with small numbers of children had reported a link – that is a statistical association – between magnetic fields and leukemia. In the studies that reported an association, more of the children who had cancer lived closer to certain types of power lines, or were exposed to higher estimated magnetic fields (e.g., Savitz, et. al. 1988; Wertheimer, et. al. 1979; Feychting and Ahlbom 1993) than other children. However, because of the limitations of these specific studies, such as the small numbers of children, the meaning of these results was not clear. Larger and better studies were then undertaken. The investigators who conducted these newer studies did not believe that their data showed convincing, consistent links between power lines and leukemia (or any other type of cancer), even when children had been exposed to higher levels of magnetic fields (e.g., Linet, et. al. 1997; Preston Martin, et. al. 1996; Gurney, et. al. 1996; McBride, et. al. 1999; Kleinerman, et. al. 2000; UK Childhood Study Investigators 1999, 2000). Nevertheless, when the data from most of these studies are pooled, a weak association for magnetic fields greater than 0.3-0.4 UT (3-4mG) is reported (Ahlbaum, et. al. 2000; Greenland, et. al. 2000). The working group concluded that the epidemiological studies do not provide support for an association between leukemia and residential magnetic fields with intensities less than 4mG. Overall, magnetic fields were evaluated as "possibly carcinogenic to humans" based on the statistical association of higher-level residential magnetic fields with childhood leukemia. IARC reviewers also evaluated the animal data and concluded that they were "inadequate" to support a risk for cancer. The group stated that the magnetic field data does not merit the category "carcinogenic to humans" or the category "possibly carcinogenic to humans" nor did the group find that "the agent is probably not carcinogenic to humans". Many

hypothesis have been suggested to explain possible carcinogenic effects of electric or magnetic fields; however, no scientific explanation for carcinogenicity of these fields have been established (IARC 2002). In conclusion, Dr. Bailey stated that electric and magnetic fields are not harmful at levels people are exposed to under transmission lines, or in homes, or near machines and electrical appliances. Electric and magnetic fields can be harmful at extremely high levels, but not at the levels found under transmission lines or around home appliances. Electric fields under transmission lines are well below those levels that cause harmful effects, and those levels must be low in order to meet electrical safety standards.

In response to cross-examination by Respondent, Ocean County, Dr. Bailey stated that the weight of the evidence that he has reviewed argues against there being an adverse health impact of the fields encountered from the existing line to the proposed line. Dr. Bailey also testified that he has reviewed occupational studies that suggested statistical associations between EMF such as brain cancer, leukemia, and male breast cancer and that in his evaluation, there is not a causal relationship between those diseases and magnetic fields. See also pp. 4-7 of Exponent's report and summary of findings of International and Review Groups, p. 14.

In response to cross-examination by Respondent, Eagleswood Township, Dr. Bailey testified that as a result of changes in the electrical phasing, the Petitioner has been able to reduce the magnetic fields in those sections of the route through Eagleswood Township.

The credible testimony of Dr. Bailey demonstrated that based upon his professional experience as a researcher and teacher and upon his review of the scientific and medical literature, he concluded that there is no scientific basis to conclude that power frequency (60 hertz) electric and/or magnetic fields would have any deleterious effects on animals or humans; and more specifically, Dr. Bailey expressed this conclusion as applied to the electric and/or magnetic fields associated with the proposed Cardiff to Oyster Creek 230 kV transmission line which is the subject of this proceeding.

III. APPLICABLE LAW AND FINDINGS

The applicable standard to be applied in this matter is set forth within N.J.S.A. 40:55D-19 which provides, in pertinent part:

> This act or any ordinance or regulation made under authority thereof, shall not apply to a development proposed by a public utility for installation in more than one municipality for the furnishing of service, if upon a petition of the public utility, the Board of Public Utilities shall after hearing, of which any municipalities affected shall have notice, decide the proposed installation of the development in question is reasonably necessary for the service, convenience or welfare of the public.

The statute, and a previous incarnation, has been reviewed by the courts and some of the elements of the interpretation have been set forth and include:

> 1. The statutory phrase, 'for the service, convenience and welfare of the public' refers to the whole 'public' served by the utility and not the limited local group benefited by the zoning ordinance.

> 2. The utility must show that the proposed use is reasonably, not absolutely or indispensably, necessary for public service, convenience and welfare at some location.
>
> 3. It is the 'situation', i.e., the particular site or location . . . which must be found 'reasonably necessary,' so the Board must consider the community zone plan and zoning ordinance, as well as the physical characteristics of the plot involved and the surrounding neighborhood, and the effect of the proposed use thereon.
>
> 4. Alternative sites or methods and their comparative advantages and disadvantages to all interests involved, including cost, must be considered in determining such reasonable necessity.
>
> 5. The Board's obligation is to weigh all interests and factors in the light of the entire factual picture and adjudicate the existence or non-existence of reasonable necessity therefrom. If the balance is equal, the utility is entitled to the preference, because the legislative intent is clear that the broad public interest to be served is greater than local considerations.
>
> [In re Public Service Electric & Gas Co., 35 N.J. 358, 376-77 (1961).]

As noted by this interpretation, the "welfare of the public" refers to the whole “public” served by a utility rather than the limited local group benefited by any particular zoning ordinance. Furthermore, the standard of reasonableness does not require that the proposed use is absolute or indispensable, but only that it is reasonably necessary for the public service, convenience or welfare. It is the obligation of this Board to weigh all the factors in making its determination, and, even where that balance is equal, the utility is entitled to the preference " . . . because the legislative intent is clear that the broad public interest to be served is greater than local considerations." In Re Public Service Electric & Gas Company, 35 N.J. 358, 377 (1961); see also In Re Monmouth Consolidated Water Co., 47 N.J. 251 (1966).

In this matter, the Petitioner has shown by a preponderance of credible evidence that the use proposed by Atlantic City Electric Company of the lands described within the Amended Petition is necessary for the service, convenience and welfare of the public.

Based upon the foregoing, and a thorough review of the record in this proceeding, the Board HEREBY FINDS:

1. That Petitioner is a public utility subject to the jurisdiction of this Board;

2. That Petitioner has filed an Amended Petition with the Board requesting that an Order be entered determining that the Zoning and Land Use Ordinances of: the Townships of Egg Harbor and Galloway, and the City of Port Republic within the County of Atlantic; and the Township of Bass River within the County of Burlington; and the Townships of Little Egg Harbor, Eagleswood, Stafford, Barnegat, Ocean and Lacey within the County of Ocean; and that the Land Use Zoning Ordinances of the County of Atlantic, County of Burlington and County of Ocean, and other Ordinances, rules or regulations promulgated by any local or county authority

under auspices of the Land Use Act of the State of New Jersey, shall not apply to either the siting, construction or operation of the proposed 230kV transmission line to be constructed between Petitioner's Cardiff Substation and terminating at the Oyster Creek Substation, adjacent to Petitioner's existing Sands Point Substation; all of which will pass through the aforementioned municipalities and counties. In addition, Petitioner has requested that such Ordinances, rules and regulations promulgated thereunder shall likewise not be applied to the facilities and structures associated with and appurtenant to said transmission lines;

3. That the proposed facilities to be constructed within the aforementioned municipalities and counties are necessary for the service, convenience and welfare of the public;

4. That the proposed electric transmission lines and the necessary appurtenant facilities will meet or exceed the requirements of the National Electrical Safety Code in compliance with the regulations of this Board;

5. That the 230kV transmission line, as proposed, designed, routed and constructed, but without making any decision as to the portion of the Northern Route covered by the corrected Stipulation located in Barnegat Township and Ocean Township, will minimize any adverse impact upon the environment;

6. That the 60Hz electric field levels associated with the proposed 230kV transmission line complies with both the Florida and the New York standards for transmission line magnetic field levels, and that there is no existing New Jersey guideline for magnetic field levels;

7. That the estimated 60Hz electric and magnetic field levels associated with the proposed transmission line at the 230kV level are similar to the actual electric and magnetic field levels associated with other 230kV transmission lines already in operation within Petitioner's service territory within the State of New Jersey and transmission lines across the United States and are similar to field levels experienced by individuals through their day to day activities and are consistent with transmission line approvals heretofore granted by this Board;

8. That the design and routing of the proposed 230kV and 69kV transmission lines incorporates reasonable efforts by Petitioner to manage electric and magnetic field exposures at modest cost such as by designing the line using a delta type conductor configuration, by utilizing an existing already impacted right-of-way, by avoiding highly populated concentrations of residential development where practicable, by using single shaft steel poles rather than H-frame or lattice towers and by compressing distances between the conductors, which constitutes effective prudent field management;

9. That the proposed electric transmission lines and appurtenance are not permitted uses in all of the Zoning districts of all of the Zoning and Land Use Ordinances of the affected municipalities and counties;

10. That the height of the pole structures, as proposed, exceeds the height limitation set forth in certain of the Zoning and Land Use Ordinances of the affected-municipalities and counties;

11. That the siting of the proposed electric transmission and subtransmission lines does not conform in all other respects to the local site development plans of each of the affected municipalities and counties, and that the transmission line and the transmission line corridors may not satisfy, in all respects, and they in fact deviate from other requirements of the Land Use

and Zoning Ordinances of the affected municipalities and of the Master Plan Ordinances of the respected municipalities, inclusive of but not limited to minimum setbacks, site plan approvals, construction permits, or other permits and licenses which may be required by certain of the Land Use or other Ordinances or regulations promulgated thereunder;

12. That, with regard to the northern portion of the route from Oyster Creek in Lacey Township to the Cedar Substation in Stafford Township ("Northern Route"), the location of the proposed electric transmission lines is compatible with the public interest;

13. That, with regard to the Northern Route, there is no reasonable, practicable, permanent and reliable alternative to the construction and routing of the proposed 230kV transmission line which would have any less adverse impact upon the environment or upon the Zoning and Land Use Ordinances of the affected municipalities or counties within the Northern Route and that the Board hereby reserves its decision, pending continued discussions among the affected parties concerning the location of the route, as to the siting and the location of the remaining portion of the route from Cedar Substation to the Cardiff Substation in Egg Harbor Township ("Southern Route");

14. That, based upon the record in this proceeding, there is no reason to deny permission to construct and energize the subject transmission lines on the basis that said lines would adversely affect the public health;

15. That the siting and the route of the proposed 230kV transmission line has been selected for interconnection with Petitioner's existing and future transmission plans, and are a reasonable and prudent part of Petitioner's system planning program;

16. That the subject 230kV transmission line, and its associated facilities and structures to be constructed as proposed by Petitioner are reasonable and necessary for the service, convenience and welfare of the public and in order to enable Petitioner to provide continued safe, reliable and economic service to Petitioner's customers and to provide adequate, permanent and reliable interconnection between Petitioner's existing transmission, subtransmission and distribution systems;

17. That, while reserving its decision regarding the siting and location of the Southern Route, and subject to further decision as to that portion of the Northern Route, covered by the corrected Stipulation, located in Barnegat Township and Ocean Township, the Board finds that as to the Northern Route, the proposed 230kV transmission line and its associated facilities and structures to be constructed, as proposed by Petitioner, can be constructed, installed and operated without substantial detriment to the public good, without violating the intent and purpose of the zoning plans and zoning ordinances of the affected municipalities and counties, and without causing undue economic injury to the neighboring property owners;

18. That, without making any decision as to the portion of the Northern Route covered by the corrected Stipulation located in Barnegat Township and Ocean Township, as to the Northern Route, there is no reasonable, practicable, permanent and reliable alternative to the construction and routing of the proposed 230kV transmission line which would have any less adverse impact upon the environment or upon the Zoning and Land Use Ordinances of the affected municipalities or counties; and

19. That the findings contained within this Order as a result of the thorough and complete review of the record in this proceeding are limited to the facts and circumstances of

this particular transmission line as intended to be constructed by Petitioner, and shall not be construed as a determination by this Board with regard to any other 230kV transmission line for which application may now be pending or for which application may hereafter be sought, and that such determination must be made by this Board on a case by case basis giving due regard to the evidence presented within each such application.

Therefore, the Board HEREBY DETERMINES that the petition filed under Docket No. EE03020114 shall be deemed withdrawn. The Board FURTHER DETERMINES, in accordance with N.J.S.A. 40:55D-19, that the 230kV transmission line as proposed by Petitioner, and its associated facilities, to be situated within the Townships of Egg Harbor and Galloway, the City of Port Republic within the County of Atlantic, the Township of Bass River within the County of Burlington, the Townships of Little Egg Harbor, Eagleswood, Stafford, Barnegat, Ocean and Lacey within the County of Ocean, although without consideration as to that portion of the Northern Route covered by the corrected Stipulation located in Barnegat Township and Ocean Township, are reasonably necessary for the service, convenience and welfare of the public in order to enable Petitioner to continue to adequately and safely serve its customers; that Petitioner shall be permitted to construct, operate and energize the 230kV transmission line, as proposed, by July, 2005; that the line will be energized and operated at 230kV without further Order from this Board; and that the Local Land Use and Zoning ordinances, and any Ordinance, rule or regulation promulgated under the auspices of the Land Use Act of the State of New Jersey by any affected municipality or county, or in furtherance thereof shall not apply to the routing, construction, use and operation of the 230kV transmission lines. In addition, the Board HEREBY ADOPTS, in their entirety, all preliminary Orders previously issued by Commissioner Butler during the pendency of this matter, and HEREBY DECLINES to amend the Order of April 7, 2004, issued by Commissioner Butler granting participant status to Heritage Point.

Accordingly, the Board HEREBY ORDERS that in accordance with N.J.S.A. 40:55D-19 et seq., and with regard to the Northern Route, that no governmental ordinances or regulations, permits or license requirements made under the authority thereof shall apply to the siting, installation, construction or operation of the proposed 230kV transmission line, the transmission line corridors, nor to any of its appurtenant or associated facilities and structures to be constructed; and that Petitioner, as to the Northern Route, shall be permitted to proceed to commence and complete the construction and installation and shall proceed to energize and operate the 230kV transmission line, and all facilities appurtenant thereto, in the manner hereinabove determined by this Board.

With regard to the Southern Route, the Board HEREBY RESERVES its decision as to its siting and location. However, the Board's reservation regarding the siting and location of the Southern Route does not affect the Board's determination and finding that the entire 230kV transmission line and its associated facilities and structures to be constructed as proposed by Petitioner from Oyster Creek to Cardiff are reasonable and necessary for the service, convenience and welfare of the public and in order to enable Petitioner to provide a continued safe, reliable and economic service to Petitioner's customers and to provide adequate, permanent and reliable interconnection between Petitioner's existing transmission, subtransmission and distribution systems.

The Board is also cognizant that the siting of the 230kV transmission line is located within areas governed by the Pinelands Protection Act and the Coastal Area Facilities Review Act. This Order shall not be construed as a certificate, license, consent or permit to construct or disturb any land within the jurisdiction of these areas until Petitioner obtains any approval or authorization to proceed from the Pinelands Commission pursuant to N.J.S.A. 13:18A-1 et seq. and the New Jersey Department of Environmental Protection pursuant to N.J.S.A. 13: 19-1 et seq.

DATED: **4/20/04**

BOARD OF PUBLIC UTILITIES
BY:

SIGNED

JEANNE M. FOX
PRESIDENT

SIGNED

FREDERICK F. BUTLER
COMMISSIONER

SIGNED

CAROL J. MURPHY
COMMISSIONER

SIGNED

CONNIE O. HUGHES
COMMISSIONER

ATTEST:

SIGNED

KRISTI IZZO
SECRETARY

I/M/O the Amended Petition of Atlantic City Electric Company for a Determination Pursuant to the Provisions of N.J.S.A. 40:55D-19

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